

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 04087374  
PUBLICATION DATE : 19-03-92

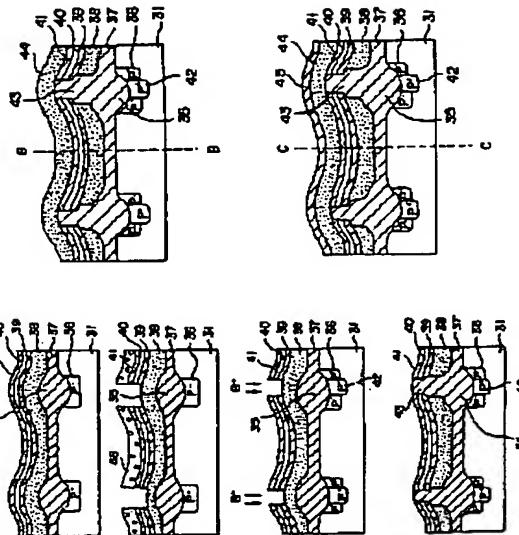
APPLICATION DATE : 31-07-90  
APPLICATION NUMBER : 02201427

APPLICANT : OKI ELECTRIC IND CO LTD;

INVENTOR : MIYAUCHI SATOSHI;

INT.CL. : H01L 29/788 H01L 27/115 H01L 29/792

TITLE : MANUFACTURE OF NONVOLATILE  
MEMORY ELEMENT



ABSTRACT : PURPOSE: To lengthen effective active region width and shorten active region width and control length so as to reduce a cell by thinning the concentration in the vicinity of an N-channel region, keeping the P-type impurity concentration at the part below a control gate, when forming the P-type impurity diffusion layer of a channel stopper.

CONSTITUTION: The patterning of a silicon nitride film 41, a silicon nitride film 40, and a polysilicon oxide film 39 is performed by photolithography so as to expose one part of the surface of polysilicon 38, and then with a photoresist 46 as a mask, B<sup>+</sup> ions are implanted by dosage of approximately 1E14cm<sup>-2</sup> at accelerating energy of 140Kev so as to form a P-type diffusion layer 42 in high concentration at the part 36 of a P-type impurity diffusion layer under an element isolation area. Thermal oxidation is performed, and finally an element isolating oxidation film 43 is created.

COPYRIGHT: (C)1992,JPO&Japio